Report of the Elk Management Advisory Team to the Director of the Department of Natural Resources and Environment

September 2010

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Introduction

The Michigan Elk Management Advisory Team (EMAT) was asked to provide a series of recommendations to the Michigan Department of Natural Resources and Environment (DNRE) regarding the future management of the State's elk population. To that end, several broad questions were posed to a diverse group of interested citizens and organizational stakeholders. The report that follows represents a summary of those agreed upon recommendations and the rationale behind each.

The Role of the Elk Management Advisory Team

The wild elk population is a unique and valuable resource to the people of the State of Michigan and the DNRE recognizes the wide range of rewards and challenges inherent in the successful management of the herd in northern Michigan. To develop elk management strategies that consider the varied concerns and interests of Michigan's citizenry, a variety of recognized stakeholder group representatives and concerned citizens were assembled to offer guidance and their unique perspectives on Michigan's elk population to the DNRE.

The resulting EMAT included agricultural, forestry, public safety, conservation, recreation and sporting interests. EMAT members included representatives from Michigan Department of Agriculture, Michigan Farm Bureau and a private seed farmer, Michigan Association of Timbermen, Michigan Department of Transportation, Michigan United Conservation Clubs, Montmorency County Conservation Club, Pigeon River Country Advisory Council and the Rocky Mountain Elk Foundation, Canada Creek Ranch, elk guides, and Michigan State University. Forestry and law enforcement and wildlife professionals from the DNRE together with Tribal representatives served as advisors to the process.

One major distinction between the EMAT and other similar wildlife advisory committee efforts was that DNRE and Tribal representatives did not have "stakeholder" positions during EMAT discussions. Instead, their role was advisory in nature and their respective comments were typically only offered in direct response to questions asked by other members of the EMAT.

The EMAT met six times throughout the summer of 2010. Each session involved spirited discussion in response to specific questions, management issues and philosophies posed by the DNRE in an effort to help frame a management plan. Once consensus was achieved on each issue, language defining the resolution to each topic was drafted by team members and unilaterally approved by the EMAT.

For the members of the EMAT and the advisory personnel, the process of crafting this document was, at times, challenging, enlightening, and fulfilling. It is the hope of the EMAT that the recommendations in this document will provide useful guidance and insight to DNRE personnel as they craft a new operational Elk Management Plan (i.e., how the DNRE will implement recommendations to meet management objectives) for

the State's wild elk population, and that the plan will be consistent with the recommendations of the members of the Elk Management Advisory Team. Members of the EMAT greatly appreciated the tremendous opportunity to be on this collaborative team and hope that the information provided will help advance the elk management program in Michigan and sustain this unique resource for future generations to enjoy.

A Shared Vision of Success for Michigan's Elk Management

We were asked to create a shared vision of success for Michigan's Elk management program. To guide our discussions and recommendations, the team was asked to answer the following three questions: What is the value of elk? What is the benefit of elk to Michigan? What are the detriments of elk or disadvantages to having elk in Michigan? The recommendations that resulted were from the information and discussion generated by these three questions.

We believe that elk provide economic, recreational, biological, and educational values to the citizens of, and visitors to, Michigan. The recreational opportunities provided by the elk herd are generally seen as beneficial to the communities within the elk range. Many people have visited these communities over the decades to either participate in the annual elk hunts or to simply view elk. However, the team did recognize that having a viable elk population is not without management conflicts. The occurrence of elk/vehicle collisions represents a legitimate public safety concern primarily on the west side of the elk range, yet is also symptomatic of the tradeoffs that are frequently associated with the presence of an elk population. Most of the social and economic conflicts associated with elk are a result of adverse impacts on private agricultural and forest lands. Resolving these management challenges to the mutual satisfaction of all stakeholders is a daunting task. Elk have provided the people of Michigan with sustenance and cultural identity, unique recreational opportunities for a state east of the Mississippi River, and also serve as an environmental indicator for the diverse landscape in northeastern Lower Michigan. The team's opinion as to the value of elk was very diverse, but was perhaps best captured through this quote from one team member; "Just knowing they are there, does something to my soul."

The team revisited the vision statement at the end of our process and a few concerns were expressed about the accepted vision statement. There was a concern regarding what management tools had the highest priority. The vision statement identified two of the most readily used management tools, but the statement indicates we are not limited by just those two tools and that is not the intent of this team to prioritize the management tools. Another concern was that the vision statement lacked wording regarding the "value of elk," It was noted that this wording was included in the first draft of the vision statement; however, the group subsequently chose to omit that language from the final vision statement.

The EMAT created the following agreed upon vision for Elk Management:

Our vision for successful elk management in Michigan is to maintain a healthy and balanced elk population and habitat, both managed actively using science-based principles. The management should consider biological, social, and economic impacts by employing best management practices, which include, but are not limited to, hunting and habitat management. The elk herd should also be managed in a way that addresses negative impacts.

Issues to Address

The DNRE provided questions related to elk and elk management that were based on a review of scientific literature, Natural Resources Commissioner's communications, and input from public meetings and e-mails. The DNRE presented background information on each question and we were asked to discuss and prepare a recommendation. The questions, in order they were addressed by the EMAT, were:

- 1. What is the value of elk?
- 2. What is the benefit of elk to Michigan?
- 3. What are the detriments of elk or disadvantages of having elk in Michigan?
- 4. What are the characteristics of ideal, acceptable, and unacceptable elk range (based on habitat and social considerations, and not geography)?
- 5. For ideal, acceptable, and unacceptable elk range, should elk be (1) a priority, (2) the top priority, (3) not a priority for habitat management in the elk range?
- 6. What parameters of elk populations and impacts should be included in monitoring to evaluate how the components of the elk management vision are being addressed?
- 7. What is a healthy herd?
- 8. What tools should the DNRE consider to mange the elk herd?
- 9. What tools should the DNRE consider to manage impacts of elk?
- 10. What should be included in an information program pertaining to elk and elk management?

Habitat Management/Elk Habitat Use and Home Range

The committee was asked what the characteristics of ideal, acceptable and unacceptable elk range were. Consideration was given to social and habitat factors and was not limited to geographic parameters.

Recommendations:

Acceptable elk habitat and range should ensure a healthy herd and ecosystem and is compatible with existing land use within an acceptable elk range while incorporating access, education, economy, and recreational experiences.

The group recommends the DNRE develop and implement an objective measurement system to plan and monitor the actual status of the elk herd, range, habitat, and assess economic and social interactions.

This information should be available to the public on a predetermined interval.

Unacceptable

- Urban areas outside elk range
- Highly fragmented land ownership tracts
- Unaddressed high traffic areas
- High disease areas
- No suitable habitat
- Areas where the elk population cannot be managed by available elk management practices
- · Areas where social, economic, and ecological issues cannot be mitigated

Acceptable

- Habitat is suitable to limit damage to agriculture, crops, forest regeneration, and other private property considerations
- Ability to balance negative impacts of the elk population on other wildlife species and their habitats
- Attracts the majority of elk on state land to enhance public viewing, education and hunting opportunities
- Elk/vehicle interaction manageable
- Adequately funded to accomplish needed herd and habitat health management
- Conditions exist to maintain a healthy elk herd that does not transmit disease
- Low level of negative ecological, social or economic conflict or impacts
- Tools are available to mitigate negative impacts

Ideal

An ideal elk range would consist of:

- Primarily publicly managed land with privately-held land consisting of large blocks and having complete cooperation of landowners
- Access and opportunity for legal harvest is available throughout the range
- The preponderance of the range is optimal elk habitat
- Low level of high volume or high speed roads
- Provides beneficial economic return to the local economy and state
- Low level of negative ecological, social or economic conflict or impacts, and those that occur can be mitigated
- Funding is available to meet management objectives
- Quantitative measurement tools are available and used for tracking and monitoring management objectives, social conflicts, and ecological impacts
- Conditions exist to maintain a healthy, disease-free elk herd
- An effective educational program is present to maintain long-term understanding and support for the elk resource

• Abundant elk-related recreational opportunities are present

Concluding Recommendations:

We recommend the DNRE pursue an elk herd and range that models the "ideal" characteristics or "acceptable" characteristics when necessary.

In the event unacceptable characteristics occur in elk herd or range, the DNRE takes steps to remedy the problem.

Rationale:

The Michigan elk population is a unique ecological, economic, and recreational resource to the State as well as the eastern region of the United States. No other State east of the Mississippi River can boast having such a diversity of successful elk viewing and hunting opportunities for over 25 years. To maintain this unique resource, the DNRE must make elk habitat management a priority where there are primarily large, single blocks of public and privately-held land. These landscapes are likely to have the fewest conflicts among stakeholders. Despite elk habitat management being a priority, situations undoubtedly will arise that will require the DNRE to take management actions that may have negative impacts on elk and/or elk habitat. These unique management challenges, however, should not impede the ability of the agency to maintain overall ideal (or acceptable) elk habitat to meet DNRE herd objectives. By maintaining suitable elk habitat and monitoring the effects of habitat management activities, future generations will be able to enjoy this unique natural resource.

Population and Impact Monitoring

The committee was asked what parameters of the elk population and impacts should be included in herd monitoring in order to evaluate how the components of the elk management vision are being addressed.

Recommendations:

Habitat (not in priority but based on sequencing—building on one another):

- 1. Assessing elk habitat availability, change and elk impacts (e.g., browsing) on other wildlife species and their habitat.
- 2. Use annual and long-term plans and inventory of aspen and other forest types and their ability to provide quality elk habitat.
- 3. Establish elk habitat correlations with elk movement patterns (public and private lands).
- 4. Use habitat assessment data from items 1-3 and forest regeneration and sustainability reports to plan and evaluate elk management and herd health.
- 5. Consider larger (greater than 40 acres) aspen clearcuts for managing elk and other species.

Economic:

• Secure better data to quantify the economic value of the elk herd together with the adverse economic interactions.

Social:

- Create a single web-based system or tool that allows DNRE to collect and convey the following types of information to the public:
 - Track and measure complaints.
 - Provide information on elk location, distribution, movement and maps, which ties to educational aspects.
- Increase awareness to the extent which hunting management opportunities exists for agricultural conflicts with elk.
- DNRE should study and monitor disturbance factors (including recreational use)
 that cause elk to move to and from public land into private land where the
 disturbance level is lower and where they are more likely to cause conflicts.

Population:

- DNRE should monitor herd structure
 - Distribution (population match habitat)
 - Herd health
 - o Age
 - Demographics
- DNRE should use the best available science to monitor the elk population.
- DNRE should monitor time-based distribution of elk herd and immigration/emigration from core area.
- DNRE should expand use of volunteers to monitor distribution.
- DNRE should conduct a quantitative and qualitative analysis as it pertains to quality habitat and time-based distribution.

Rationale:

Monitoring and the evaluation of data are critical for understanding if natural resources management objectives have been met and how management strategies may have to be changed in the future to meet those objectives. Because the DNRE makes management decisions that influence elk habitat suitability, the composition and structure of the elk population, and how stakeholders interact with the resource, establishing a set of metrics (habitat, socio-economic, population) and evaluating data from those metrics would allow the DNRE to effectively evaluate their management objectives, strategies, and potential impacts. Making management decisions without the best available science may contribute to a degradation of the elk resource and escalate elk-human conflicts.

Herd Health

Michigan's wild elk population is exposed to livestock operations (mainly beef and dairy herds) and native white-tailed deer. Because the eastern portion of the elk range is located in a Bovine Tuberculosis (bTB) endemic area, we feel that monitoring bTB in elk should be continued as there is potential for disease to be transmitted from livestock operations or from wild animals into the free-ranging elk population.

The elk population should be balanced with its habitat so that their presence does not limit the regeneration of native plant species and communities or have other negative impacts on their range. We encourage the DNRE and private property owners to manage their lands in a manner that will perpetuate and enhance elk and their habitat to ensure a healthy, productive population as well as ecosystem integrity. To meet these management goals we recommend the following.

Recommendations:

We recommend that indicators of a healthy elk herd include:

- Malnutrition and diseases should not be at a level to impact elk population size and recruitment.
- Non-hunting/non-vehicle mortality should be at or below current rates.
- Does not have diseases that pose an economic or population level risk to other species.
- Population densities, size, demographics, and distribution should be in balance with habitat which provides elk in good physical condition, acceptable recruitment rates, and allows elk to exhibit normal social behaviors.

We further recommend:

- DNRE should continue to closely monitor the health of the Michigan elk herd at carry-over levels.
- Current activities should be evaluated and continued or modified as necessary to ensure an efficient and effective program to sustain a viable elk herd.
- DNRE should review policies and where necessary enact regulations that would prevent or reduce the risk of Michigan's elk from becoming infected with diseases of concern.

Rationale:

We believe that the health of the elk population should be a priority for the DNRE. Elk are susceptible to a variety of wild and domestic diseases and parasites. Diseases that may impact Michigan's elk herd health include, but are not limited to, bTB, Chronic Wasting Disease (CWD), and Cerebrospinal nematodiasis (brainworm). Monitoring for these diseases (and other potential diseases in the future) will help natural resources managers maintain a viable and healthy population into the future.

Population Management

Michigan's elk population holds great value for recreational opportunities such as hunting, viewing, photography, and antler shed hunting. The population is also an important part of Michigan's natural history. Maintaining a healthy elk population is vital for continuing recreational traditions and preserving our natural heritage.

Ecological and social carrying capacity and social tolerance play key roles in shaping Michigan's elk population. We understand that the elk population will fluctuate and move and, therefore, encourage the DNRE to manage the population within the ecological carrying capacity of their habitat and range with as few negative social impacts as possible.

Recommendations:

We recommend the DNRE continue to use the following tools to manage the elk herd:

- Hunting
- Relationship building
- Habitat manipulation
- Education

Rationale:

Hunting (recreational and subsistence) should be maintained as one of the primary tools used to manage Michigan's elk population. Managing the population through hunting is a functional wildlife management technique that can be used effectively to meet harvest goals that result in a healthy and sustainable elk population. A DNRE education program, with a focus on elk population and habitat management, will also help build and foster hunter/landowner relationships.

Elk/Human Conflicts

Landowners often enjoy having and viewing elk on their property. However, some landowners have had negative elk impacts to their property or livelihood, which can result in management issues for the property owner and the DNRE. What is socially tolerable can vary greatly between individual landowners and wildlife managers.

Recommendations:

Because of this variance, we recommend the following approach:

We recommend the DNRE should use an incremental approach when addressing elk/human conflicts guided by severity and frequency of conflicts. When the severity and frequency of conflicts are low, more conservative methods should be applied. More aggressive methods may be applied as the severity and frequency of conflicts increase.

We recommend the DNRE use the following tools to manage impacts of elk:

- Relationship building
- Education
- Harassment
- Hunting
- Habitat manipulation
- Fencing
- Out-of-Season Lethal Removal

Out-of-Season Lethal Removal

- Primary emphasis for lethal removal of elk should always be hunting within the DNRE system of permit and tag allocation.
- Greater efforts should be made to address chronic elk/agricultural conflicts through the use of DNRE/hunter/producer relationships during the hunting season structure.
- Lethal removal of elk out-of-season should be an available tool used when DNRE determines no other effective tools are available:
 - o In instances involving visibly disease-affected or severely injured animals
 - In urgent situations where a problematic elk threatens health, safety, or welfare of citizens and/or livestock
- The removal is managed and performed by DNRE or their authorized representative and NOT through the issuance of landowner kill permits.

Restitution

We recommend DNRE review restitution practices, guidelines and experiences from other states. At the conclusion of the DNRE review and without diverting existing DNRE funding sources, consideration should be given to the implementation of an adjustment program.

Rationale:

Managing human-elk conflicts in a timely manner using a variety of techniques based on the severity and extent of the conflicts will help the DNRE maintain a viable elk population, suitable wildlife habitat, and good relationships among stakeholders.

Funding

History has taught us that maintaining quality wildlife programs that sustain the resource for its ecological values while providing recreational opportunities for stakeholders requires stable and diverse funding sources. Michigan's elk management program is no exception.

Recommendations:

The DNRE, in conjunction with stakeholders pursue long term stable funding to implement the elk management plan.

Rationale

To accomplish the goals of the elk management plan and evaluate its effectiveness, the DNRE must have consistent long-term funding. It is also our belief that elk provide a greater economic benefit than license sales. Currently, the DNRE has limited General Fund support and relies heavily on restricted funds from Pittman-Robertson and Fish and Game funds. We support the DNRE's need for consistent funding that is less dependent on hunter license sales.

Information and Education

The committee was asked to confirm the need for an elk information management program, together with recommendations on those elements which should be included in such a program.

Information and education should be major components of any management plan; however, they are often overlooked. We believe the DNRE should give high priority to planning and implementing an effective information and education communication strategy regarding elk ecology and management practices. The strategy should identify audiences (internal and external, i.e., within agencies and the general public), informational messages, and tools and media used to deliver messages. We recognize that there are countless opportunities for the DNRE to partner with many organizations to help deliver these messages. An important component of this effort should include a regular needs assessment and an evaluation of program effectiveness.

Goals of an information and education program should include the following objectives related to elk management:

- Increase understanding of various elk issues
- Modify hunter behavior and expectations
 - Provide separate information document targeted at prospective elk hunters. This document should include competency expectations and realistic hunter expectations.
 - Consider ways to assure hunter competency (i.e., training DVD to successful applicants and demonstrate competency at the rifle range)

We believe the following topics should be part of an information and education program related to elk management:

- Elk ecology
- Trespass laws
- Hunter behavior and expectations

- Elk/vehicle collision
- Inform economic and social benefits of elk to state of MI
- Hunting guide behavior and expectations
- Educate and market elk herd nationally
- Elk hunting laws
- Recreational elk hunting ethics
- History of elk management
- Elk viewing opportunities, accessibility, and interpretation (creation and enhancement)

Regarding information and education, we recommend the DNRE:

- Work with partners to develop and use educational materials and opportunities to the greatest degree possible.
- Develop an elk communication strategy to ensure consistent and accurate information is conveyed to the public concerning elk ecology and elk management in Michigan. This plan will serve to maximize public outreach and participation while being flexible so all or portions of the plan can be adapted to changing needs.

Rationale:

Building and maintaining relationships among diverse stakeholders requires open communication strategies that allow the sharing of information, explicit expectations, interests, and issues among all parties involved in elk management. Implementing such practices proactively through information and education programs will ultimately help conserve the elk resource and stakeholder relationships.

We, the members of the Elk Management Advisory Team, and as the designated representatives of ourselves or an agency or organization, support the elk management advisory team recommendation report.

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